SUPPORT DOCUMENT 000085-0

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for the Air Operating Permit issued to

Simpson Tacoma Kraft Company
801 Portland Avenue
Tacoma, Washington 98421

State of Washington
DEPARTMENT OF ECOLOGY
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Table of Contents

INTRODUCTION

This Operating Permit Support Document fulfills the operating permit rule "Statement of Basis" requirement and explains particular portions of the air operating permit for the Simpson Tacoma Kraft Company.

This document is not part of the operating permit for Simpson Tacoma Kraft Company. Nothing in this document is enforceable against the permittee, unless otherwise made enforceable by permit or order.

STATEMENT OF BASIS

When the Department of Ecology issues a draft operating permit, it is required to provide a statement that sets forth the legal and factual basis for the draft permit conditions, including references to the applicable statutory or regulatory provisions. [WAC 173-401-700(8).]

I. Assuring Compliance With Applicable Requirements

Certain permit conditions impose a single emission limit or requirement that is based on two or more underlying applicable requirements. The table in Appendix A to this Support Document presents the basis for consolidating these multiple requirements into single permit conditions.

Copies of the state Regulatory Orders that impose limitations and requirements on the permittee are provided in Appendix C of this permit. The mill-wide order establishes source-specific limitations, but also includes default limitations established by state regulations. This was done in an effort to incorporate all applicable pollutant specific limitations in one document. The Order is not intended to be a separate legal source for default limitations that are based in state regulations. Therefore, for limits derived directly from state regulations that were included in Regulatory Orders for convenience purposes, Ecology considers the regulation and not the Order to be the “applicable requirement” for purposes of Title V. Consequently, the permit does not cite the Order as an applicable requirement for regulatory limits; for these limits, the permit cites only the regulation as the underlying applicable requirement.

Ecology has preferentially relied on direct source testing as the most robust and accurate method of determining compliance and, through frequency of testing, assuring compliance. Source testing is resource and time intensive. More frequent monitoring requires the use of some sort of indirect surrogate parameter. The frequency of direct source testing has been stipulated through Orders which are included in Appendix C of this document. Ecology has attempted to reconcile frequency of monitoring with accuracy of monitoring by relying on both direct periodic source testing and more frequent indirect monitoring using surrogate parameters. Acknowledging the surrogate monitoring parameters as compliance indicators but not necessarily compliance determinants addresses the qualitative concerns regarding surrogate monitoring parameters. Where surrogate monitoring parameters have been employed, the Permit has been structured

such that noncompliance with the surrogate limitation requires corrective action. Failure to take corrective action and bring the surrogate parameter within bounds constitutes noncompliance with the need to follow good operation and maintenance as required by WAC 173-405-040(10). The Permit thus combines periodic direct source testing which definitively determines compliance with surrogate monitoring requirements indicating compliance to achieve an overall monitoring program intended to meet the Title V requirement of monitoring sufficient to assure compliance.

The frequency of both direct source testing and the application of surrogate parameters intended to indirectly infer compliance with the underlying applicable requirement is based on best professional judgment of the historical probability of exceeding the imposed limitation and the potential magnitude of an exceedance. A summary of the historical emissions testing results which served as the basis for determining the frequency of monitoring is included in this document as Appendix B.

Emission units such as the lime kilns and recovery furnace #3 have venturi scrubbers as emission control equipment or as part of the emission control equipment train. The requirement to monitor and maintain pressure drop across the venturi scrubbers at certain set points was, prior to the advent of Title V Permits, initially imposed as an indicator of proper operation and maintenance regarding opacity and particulate emission minimization. Particulate source testing and visual observations of opacity indicate that the surrogate scrubbing parameters stipulated can be used as indicators of compliance with the opacity and particulate emission limits. Testing done evaluating scrubber pressure drop on the #1 lime kiln versus grain loading indicated that maintaining pressure drop at 23 inches of water and maintaining scrubber flow at 200 gpm resulted in grain loading which averaged 0.065 gr/dscf. The grain loading limit is .13 gr/dscf.

For some units, such as Power Boiler #7, opacity is proposed as a compliance indicator for particulate emissions. At this time Ecology does not know of a definitive relationship between opacity and particulate emissions for all emission units such that opacity could be used as a predictive emissions parameter. None the less there is a relationship such that the opacity levels selected, the opacity limits themselves, are believed to adequately function as surrogate indicators which infer compliance with the underlying applicable requirement. For example, testing done evaluating opacity versus grain loading for RF #4 resulted in a data set that included a maximum opacity of 26.3 % which correlated to a grain loading of 0.0387 gr/dscf. The grain loading limit is .10 gr/dscf for RF #4 and the opacity limit is 35%.

Incorporated into the Permit for the lime kilns and recovery furnace #4 is an allowance for a reduction in source testing frequency which may be allowed if particulate emission control meets certain criteria. Ecology has introduced this allowance as an incentive to encourage improved emission control. The first criterion which must be met to allow consideration of source testing frequency reduction is a proven history of performance. This requires a source to achieve 6 consecutive months of monthly source testing results that are not greater than 75% of the particulate emission limit. To maintain the reduction in testing frequency no subsequent testing

results can be greater than the 75% threshold. If a test result is greater, the testing frequency reverts to a monthly basis until the next 6 consecutive monthly period of improved performance has occurred.

Simply meeting the 75% threshold is not the only criteria for gaining a reduction in source testing frequency. Subjective criteria are also evaluated and ultimately best professional engineering judgement is exercised. Primary factors also considered include historical emission trends and degree of confidence in maintaining emission limit compliance between source testing events. For example, a unit from which particulate emissions have been historically increasing would probably not gain the source testing frequency allowance. It possibly could be argued that such a unit was already trending toward noncompliance with WAC 173-405-040(10) which requires operation and maintenance of a facility and emission that operated only periodically probably would not be granted a reduction in monitoring frequency because of possible problems developing from its "mothballed" status. A reduction in testing frequency would also be dependent on the strength of surrogate information available indicating limit compliance between testing events. If a surrogate parameter was deemed control equipment in a manner consistent with good air pollution control practices. Also a unit adequate for compliance indication when coupled with monthly testing but not adequate as a stand-alone compliance indicator, a reduction in testing frequency would not be granted despite achieving the 75% emission allowance threshold.

Where the respective Order is the basis of authority for the required source testing and establishes the frequency of source testing, the mechanism for achieving a reduction in source testing frequency is modification of the underlying Order. The current wording in the title V permit allowing the consideration of such a reduction is designed as a placeholder such that modification of the underlying Order will not require opening the Title V permit for modification. A 30 day public comment period will still occur associated with modification of the Order.

I.A. Comments on Specific Permit Conditions

1. Permit Conditions A1, B1, C1, D1, E1, F1

Ecology began preparation for Title V implementation in 1995. The first step was consolidating several orders into Order DE 95-AQI007. At this time Ecology deliberated on the frequency of source testing. In recognition of the frequency of monthly source testing and the resource demand of monthly testing Ecology implemented a single pass minimum. Order DE 95-AQI007 was subsequently amended in 1997 by Order DE 97AQ-I004. Inadvertently the modification of source testing methodology was not included. Without the explicit clarification that only one pass was required, the applicable DOE test methods state that 3 passes are the minimum number necessary. EPA Method 5 wording states that, "a set of three runs usually constitutes a field test." The clarification that only one pass is required is incorporated, as of May 1998, into the Title V Permit for Simpson. An administrative change to Order DE 97AQ-I004 clarifies that

only one pass is required. The amended Order DE 97AQ-I004 is appended to this Support Document.

2. Permit Conditions A2, B2, C2

In 1980 Ecology initiated a requirement that, where continuous sulfur dioxide monitoring was not being performed, a monthly one-hour test for sulfur dioxide was required for recovery furnaces and lime kilns. Wording has been added to the cited permit conditions to clarify the sampling time duration. The one-hour test is a modification of DOE Method 12 which stipulates 3 as the minimum number of samples and stipulates 2 hours as the minimum sample duration. A copy of the 1980 letter defining the one-hour test is included in Appendix C of the Support Document.

DOE Method 12 was originally developed for determining TRS concentrations. When used in this mode, SO2 is scrubbed from the sample gas flow prior to coulometrically determining total sulfur content. It is important to remove the SO2 prior to determining TRS concentrations because SO2 usually is present in much larger concentrations. When the same method is used to determine SO2 concentrations the inclusion of the sulfur from TRS compounds is not typically significant as the final result will be a slight overestimate of actual SO2. The coulometric determination means that current flow is measured between anode and cathode with the sulfur species acting as the analyte. The greater the sulfur content the greater the current flow. Simpson runs a SO2 calibration check monthly. A linear relationship is assumed between two points. The zero point is determined from ambient air. The second point is chosen at an SO2 concentration close to the upper end of the expected SO2 concentration in the exhaust flow. Over a narrow concentration range the linearity assumption is not believed to induce significant inaccuracy. The same calibration procedure is followed for TRS except that a calibration check is performed once a week and H2S is used as the calibration gas.

3. Permit Conditions A3, B3, C3, and D3

Surrogate monitoring parameters are used in some cases as trigger mechanisms for taking corrective action for possible noncompliance with opacity limitations. Exceedance of the trigger mechanisms is not by itself a violation of the permit. Failure to take corrective action is considered a violation of the permit. What constitutes corrective action is intentionally left undefined because it is situation specific. Corrective action can include a visual evaluation of actual opacity in response to exceedance of a trigger mechanism. A visual opacity assessment, as used in this permit, is the use of an observer trained in general procedures for determining visible emissions, which could include DOE Method 9B or EPA Method 9. A trained observer does not need to have current certification in Method 9B. Under normal conditions a trained observer is expected to be present at the facility, while a certified Method 9B observer may not always be readily available.

4. Permit Condition E.2

The opacity monitoring requirements for Power Boiler #6 differ from those required for other emission units in recognition of the type of fuels used in this unit and in recognition of the mill's own economic interest to efficiently run this unit. Visual observations are waived when Power Boiler #6 combusts only natural gas because gas is a clean burning fuel and visible emissions are not expected to be present even during "inefficient operation". This is recognized in the Federal New Source Performance Standards which do not require opacity monitoring for boilers that only combust natural gas. Visible emissions from oil burning typically result from incomplete combustion. It is in the Permittee's best economic interest to assure efficient combustion to derive the maximum energy benefits from the fuel purchased. By maintaining efficient combustion, visual emissions are minimized. The facility is required to maintain records of fuel consumption in Power Boiler #6 to document what monitoring is appropriate.

5. Permit Condition E.3

The ≤ 2% sulfur limit on fuel oil sulfur content for Power Boiler #6 assures compliance with the 1,000 ppm SO2 standard, based on the following calculations:

F_d = 9190 dscf/MMBtu for residual oil
("F" factor from 40 CFR, Part 60, App. A, Method 19)

$$C_d = \frac{(.02 \text{ lb S/lb oil})\ (2 \text{ lb SO2/lb S})\ (385 \text{ dscf SO2/64 lb SO2})}{(18{,}750 \text{ Btu/lb oil})\ (9190 \text{ dscf/MMBtu})}$$

Therefore, C_d = .00140 dscf SO2/dscf flue gas = 1400 ppmv SO2

Corrected to 7% excess O2: (1400 ppmv SO2) x $\frac{20.9-7}{20.9}$ = 930 ppmv SO2

6. Permit Condition F.1

The 0.01 gr/dscf limit assures compliance with the NSPS limit in 40 CFR 60.43b(c)(1) of 0.10 lb/MMBtu heat input, based on the following calculations:

F_d = 9600 dscf/MMBtu for wood bark
F_d = 9240 dscf/MMBtu for wood
F_d = 9190 dscf/MMBtu for residual oil
F_d = 8710 dscf/MMBtu for natural gas
("F" factor from 40 CFR, Part 60, App. A, Method 19)

The following calculation uses the F factor for wood bark because wood bark accounts for most of the particulate emissions and has the most stringent gr/dscf limit.

$$\frac{(0.10 \text{ lb/MMBtu})\,(7000 \text{ gr/lb})}{(9600 \text{ dscf/MMBtu})}\ \frac{(20.9-7)}{20.9} = 0.0485 \text{ gr/dscf @ 7\% } O_2$$

Therefore, the NSPS limit of 0.10 lb/MMBtu ≡ 0.0485 gr/dscf @ 7% O_2, which is less restrictive than the permit limit of 0.01 gr/dscf.

7. Permit Condition F.2.

The issue with this condition had been whether the NSPS opacity standard of 20% was more stringent than the opacity standard imposed by the NOC approval order. By clarifying the 10% standard to mean an average over 6 minutes similar to the NSPS standard it should be clear that the 10% standard is more stringent. Reference to the NSPS standard has been removed from emission unit specific requirement portion of the permit. Discussion of the NSPS standard has been placed in Appendix A of the Support Document where similar situations are addressed.

8. Permit Condition F.3b

This permit condition establishes an annual NOx mass emission limitation. In reviewing the draft permit, EPA's position was that the NOx annual mass limit as originally worded in Order DE 97AQ-I004 was not "enforceable as a practical manner." EPA stated that they would interpret a 12-month limit as enforceable as a practical manner if it was calculated on a monthly rolling basis. Simpson has agreed to this. Ecology has modified the interpretation of the limit as requested by EPA as the new interpretation is not construed as resulting in a less stringent limit. Ecology interprets the change as not substantively affecting the underlying limitation from Order DE 97AQ-I004 and as such has not changed the Order. Ecology notes that this change is made solely in hopes of expediting EPA permit review and in no way alludes to problems with the original wording, original NOC approval process, or subsequent changes to affecting orders.

9. Permit Condition F.4c

The monitoring provision for the 10% annual oil capacity factor is sufficient to assure compliance based on the following calculation:

Oil capacity factor (%) = ((H_{oil}, Btu/lb) * (gallons oil fired) * (7.9 lbs/gallon) * 100) /((506.3 MMBtu/hr)*(period hours))

a. No. 7 Power Boiler maximum continuous rating (MCR) = 506.2 MMBtu/hour (source: Riley Contract 89004 manual).

b. Fuel oil heating value, $H_{oil,}$ determined using ASTM Method D240-76.

c. Fuel oil density = 7.9 lbs/gallon.

10. Permit Condition F.4.f

Monitoring related to firing oil is all that is necessary to assure compliance with the 1000 ppm SO2 limit. No monitoring or recordkeeping is needed when the source burns natural gas or hog fuel without oil because of the low sulfur content of those fuels.

11. Permit Appendix A. Permit Shield/Inapplicable Requirements

EPA commented on the applicability of 40 CFR 60.44b(b) which established procedures for setting NOx limits for a unit that simultaneously combusts mixtures of coal, oil or natural gas. This requirement is considered inapplicable to PB#7 because this unit is currently not constructed such that oil and gas can be co-fired. It is potentially possible that the unit could fire coal but it is Ecology's position that to do so would first require the Permittee to complete the New Source Review Process.

12. Permit Condition G.

Specific monitoring requirements have been left unspecified given the units historical ability to comply with the emission limit without the assistance of emission control equipment. Baseline testing of particulate emissions without the scrubber operating shows particulate emissions averaging 0.013 gr/dscf which is an order of magnitude below the 0.10 particulate limit set forth in WAC 173-400-060. Ecology considers good operation and maintenance to consist of operation of the scrubber. The historical emissions testing results in gr/dscf are as follows:

	Scrubber On		Scrubber Off
Run 1	0.01	Run 4	0.0201
Run 2	0.0318	Run 5	0.0075
Run 3	0.0103	Run 6	0.0109

13. Permit Condition 8.

Permit Condition 8 is the generic opacity limitation from WAC 173-405-040(6) which addresses kraft mills. Permit Conditions 9 and 12 work together to assure compliance with Condition 8 by requiring, first, that facility equipment be maintained and operated "in a manner consistent with good air pollution control practice" and, second, that the permittee record and promptly respond to complaints received or possible noncompliance noticed by facility staff. Ecology believes that this is a practical and effective way to assure compliance because the emission units covered by this condition do not have control devices that can be monitored and they have very low risk of producing visible emissions except during process upsets. The mill is staffed around the clock

and all staff are trained to notice and report unusual conditions, such as those associated with upsets. It is a violation of the permit to fail to take corrective action when an instance of possible noncompliance has been reported and found to be valid. Ecology believes that imposing additional monitoring such as a weekly visual inspection would have little value in identifying noncompliance and would, by presence, possibly convey a false sense of compliance.

14. Permit Condition 10.

Permit Condition 10 is the generic SO2 limitation from WAC 173-405-040(11) which addresses kraft mills. EPA raised the issue of compliance regarding this requirement given the discrete interval of testing for some units and the existence of units for which no monitoring is required. Ecology has imposed periodic discrete monitoring for those units deemed to warrant monitoring. Ecology has not imposed monitoring for units unlikely to have a reasonable potential of exceeding SO2 emission limits. Appendix B of the Support Document summarizes the SO2 emission history of the major SO2 emission units.

Surrogate monitoring for intervals between direct SO2 testing was not imposed because in practice mills do not adjust operating parameters to minimize SO2 emissions. There are no control devices or control strategies to allow this. Instead, SO2 emissions are largely a function of equipment and process design. The nature of the kraft process is optimized by system stability and continuity. Ecology has no professional basis to believe that process parameters fluctuate to a degree that results in SO2 emissions approaching the 1000 ppm limit and thus warranting surrogate monitoring.

15. Permit Condition 11.

Permit condition 11 consists of two parts. The first part is an inclusion of WAC 173-400-105(5)(h) which allows that monitoring and reporting requirements may be temporarily lifted during periods of monitoring system malfunction provided the permittee adequately explain such periods.

The second part of condition 11 is based on what Ecology considers an unlikely but possible scenario where recorded monitoring data is simply lost. Ecology will allow a 90% recovery rate for monitoring data if the permittee provides an adequate explanation for the cause of the lost data. Ecology expects the permittee to make every reasonable effort to maintain the integrity of all monitoring results. An allowance is specified for missing monitoring results under certain conditions so that these defined conditions are not defined as “violations,” thus reducing the administrative burden on the source and the permitting authority.

II. MACT Early Reduction Program

Simpson applied for participation in EPA's Early Reduction Program for hazardous air pollutants (HAPs) under Title 40 Part 63 of the Code of Federal Regulations. The program allows a participant up to a 6-year extension from compliance with an imposed maximum achievable control technology (MACT) if the participant demonstrates early reduction before a standard is imposed. Simpson qualified for this program by achieving reductions in the emissions of HAPs. To date EPA has not proposed MACT standards for kraft pulp mills. The permit authorizes Simpson to operate in compliance with the Alternate Emission Limit that The Department of Ecology established for it under the Early Reduction Program. The specific Alternate Emission Limit terms and conditions are contained in an appendix to the permit.

The Early Reductions Program is unique because it offers qualifying sources the option to comply with the MACT standard or the Alternate Emission Limit. Although not technically an "alternate operating scenario", treating it as such will allow the permittee to make this option without having to go through an unnecessary permit amendment process. Consistent with the alternate operating scenario procedures, therefore, the permit requires that the permittee make a contemporaneous record whenever it chooses to comply with the Early Reduction Program Alternate Emission Limit or any applicable MACT requirements. To the extent that a request in the application is necessary to allow for an alternate operating scenario, this provision is deemed to supplement the permittee's operating permit application with such a request. If the source chooses to comply with a MACT standard and there are 3 or more years remaining before the end of the permit term, the permit will be reopened to incorporate the MACT limits.

III. Insignificant Emission Units

The facility-wide general requirements apply to the whole facility, including insignificant emission units and activities (IEUs), as required by the operating permit rule. The rule states, however, that IEUs are not subject to monitoring requirements unless the generally applicable requirements in the State Implementation Plan (SIP) impose them. [WAC 173-401-530(2)(c)]. The Washington SIP does not impose any specific monitoring-related requirements for the facility-wide requirements for IEUs at this source. The permit, therefore, does not require any testing, monitoring, reporting, or recordkeeping for insignificant emission units or activities.

IV. Regulatory Orders

The permittee is currently subject to two regulatory orders. The first, Order DE 97AQ-I004 consolidates all previous requirements from past state approvals, orders and letters. The second, Order DE 95AQ-I006, imposes a daily PM-10 limit as part of the State Implementation Plan strategy for achieving PM-10 attainment in the Tacoma tideflats. This order was incorporated into the Washington SIP, and therefore made federally enforceable, on October 25, 1995 in 60

Federal Register 54599. A majority of the most stringent emission limits for the facility are contained in these orders. Copies of the orders are provided in Appendix C.

An important issue regarding any Title V permit is the basis of authority for the applicable requirements. This is particularly true regarding monitoring and reporting requirements. The basis of authority is used to determine federal or state-only applicability. Many of the applicable requirements come from orders issued by Ecology. The period of time during which these various orders were issued spans decades. Early on in the permitting process Ecology attempted to sort out the regulatory basis for the orders. Ecology determined that this was not possible. Many of the orders originated years ago and the basis of authority was not clearly set forth at the time of issuance. Also order consolidation has gone on in the past further confusing the original basis of authority. Ecology decided the effort, besides being difficult, was not necessary as WAC 173-401-615 offered a solution to this problem. With the permittee's agreement in the case of Simpson, the issue of state-only or federal applicability was put aside as it was agreed to rely entirely on WAC 173-401-615 as the basis of authority for the type and frequency of monitoring. WAC 173-401-615 requires monitoring and recordkeeping sufficient to assure compliance with the terms and conditions of the permit. This regulation is federally enforceable. Monitoring and recordkeeping requirements based on this regulation are federally enforceable.

Appendix A

Certain permit conditions impose a single emission limit or requirement that is based on two or more underlying applicable requirements. This table presents the basis for consolidating these redundant requirements into single permit conditions.

F. Power Boiler #7

Limit #	Underlying Applicable Requirements -- Cite and Paraphrase of Requirement	Basis for Consolidating
F.1	**Order DE 97AQ-I00**4: particulate limit for Power Boiler #7 is 0.01 gr/dscf @ 7% O2; EPA Method 5**.** **WAC 173-405-040(5)(a)**: particulate emissions shall not exceed 0.05 gr/dscf (corrected to 7% O2) for units combusting wood and wood residue to produce steam which began construction after 1/1/83; methods in DOE Source Test Manual**.** **40 CFR §60.43b(c)(1)**: subpart Db facility that combusts wood with other fuels, except coal, and has an annual capacity factor > 30% for wood shall not emit particulate matter in excess of 0.10 lb/million Btu heat input; Method 5, 5B or 17**.**	The permit uses the order limit of 0.01 gr/dscf because it is more stringent than either of the other two limits. The WAC limit is in the same terms and is less stringent. The NSPS limit is roughly equivalent to 0.04 gr/dscf, which is less stringent than the limit imposed (see calculation in Support Document).
F.2	**Order DE 97AQ-I00**4: opacity limit for Power Boiler #7 is 10%, avg. of 6 consecutive minutes per 60 minutes; DOE Method 9B**.** **WAC 173-405-040(6)**: no plume from a unit other than a recovery furnace, smelt dissolver tank or lime kiln with an average opacity > 20% for more than 6 consec. min. in any 60 min. period; DOE Method 9B**.** **40 CFR §60.43b(f)**: subpart Db facility that combusts coal, oil, wood or mixtures of these fuels with any other fuels shall not emit gases that exhibit > 20% opacity (6-minute average), except for one 6-minute period per hour of not > 27% opacity (the opacity standard does not apply during startup, shutdown or malfunction); Method 9**.** **40 CFR §60.48b(a)**: facility subject to subpart Db opacity standards must operate a CEMS for opacity and record the output of the system**.**	Permit imposes the 10% opacity limit from the Order, which is more stringent than the 20% NSPS limit, and requires a CEMS for opacity.
F.3a	**Order DE 97AQ-I00**4: NOx limit for Power Boiler #7 is 0.30 lbs/MMBTU (30-day rolling average); monitor continuously using an approved CEM**.** **40 CFR §60.44b(d)**: subpart Db facility that simultaneously combusts natural gas with wood or other solid fuels shall not emit NOx in excess of 0.30 lb/million Btu heat input, unless subject to 10% annual capacity factor for gas**.** **40 CFR §60.48b(b)**: facility subject to subpart Db NOx standards must operate a CEMS for NOx and record the output of the system. **40 CFR §60.49b(i)**: facility subject to subpart Db NOx CEM requirements must submit reports every quarter**.**	Permit imposes 0.30 lbs/million Btu limit from the Order, which is the same as the NSPS limit of 0.30 lbs/million, requires NOx CEMS, and requires monthly reporting (more frequent than the quarterly reporting required by the NSPS).

F.4e	**40 CFR §60.42b(d)(1)**: subpart Db facility with a federally enforceable annual capacity factor for coal & oil of 30% or less shall not emit SO2 in excess of 0.5 lb/million Btu heat input if facility burns oil other than very low sulfur oil. **40 CFR §60.42b(e)**: Unless exception applies, compliance with the limits in 40 CFR §60.42b are determined on a 30-day rolling average basis**.** **40 CFR §60.47b(a)**: facility subject to subpart Db SO2 standards must operate a CEMS for SO2 and either O2 or CO2 and record the output of the system, unless the alternative monitoring method is used (60.47b(b)) or the facility combusts very low sulfur and obtains fuel receipts (60.47b(f)). **40 CFR §60.49b(j)**: facility subject to subpart Db section 60.24b SO2 standards must submit written reports for every calendar quarter, postmarked by the 30th day following the end of each quarter**.**	Permit consolidates these four provisions into one requirement that imposes the 0.5 lb/million Btu limit on a 30-day rolling average basis, requires the permittee to follow the alternative monitoring method in §60.47b(b), and to report the calculation results quarterly.
F.8	**Order DE 97AQ-I00**4: monthly monitoring reports must include any occurrence of excess emissions recorded on a CEM for Power Boiler #7, including the time, magnitude, duration, cause, & any corrective action. **40 CFR §60.49b(h)**: facility subject to subpart Db SO2 standards must submit excess emission reports for any calendar quarter for which there are excess emissions**.**	Both require excess emission reports to be submitted. Permit imposes the Order requirement, which requires submission more frequently than the NSPS requirement.

Facility-Wide General Requirements

Limit #	Underlying Applicable Requirements -- Cite and Paraphrase of Requirement	Basis for Consolidating
3	**WAC 173-400-040(7)**: shall not install or use any means that conceal or mask an emission of an air contaminant that would otherwise violate provisions of the chapter. **40 CFR §60.12 for Power Boiler #**7: no owner subject to NSPS shall install equipment or process that conceals an emission that would otherwise violate an applicable standard**.**	Both provisions prohibit concealment and masking; the permit incorporates all applicable standards.
1**2**	**WAC 173-405-040(10)**: to extent practicable, maintain and operate in a manner consistent with good air pollution control practice. **40 CFR §60.11(d) for Power Boiler #**7: to extent practicable, maintain and operate in a manner consistent with good air pollution control practice for minimizing emissions**.**	The language of the two provisions is virtually identical.
26	**WAC 173-400-10**5: maintain records re: emissions type & quantity, & other info necessary to determine compliance w/ applicable standards and control measures. **WAC 173-401-615(2)(a)**: permit shall require records of required monitoring information. **40 CFR §60.49b(f) for Power Boiler #**7: source subject to subpart Db shall maintain records of opacity**.**	All require permittee to maintain records of required monitoring, including records of opacity monitoring required for Power Boiler #7 (in conjunction with Condition F.2).
28	**WAC 173-401-615(2)(c)**: retain records of all required monitoring data and support information for 5 years. **40 CFR §60.49b(o) for Power Boiler #**7: maintain all records required by 60.49b for 2 years**.**	The more stringent 5-year retention period encompasses the 2-year period for the NSPS unit.

Appendix C. Existing Orders

Order DE 97AQ-I004
Order DE 95AQ-I006